#### **Lake Poinsett**

## **Site Description**

Location

Water designation number (WDN) 32-0001-00

Legal description T112N-R52W-Sec.3-6; T113N-R52W-Sec.14-16,20-23,26-34

County (ies) Hamlin/Brookings

Location from nearest town 7.0 miles west of Estelline, SD

Survey Dates and Sampling Information

Survey dates July 23-25, 2013 (FN, GN)

September 17, 2013 (EF-WAE)

Frame net sets (n) 17
Gill net sets (n) 6
Fall electrofishing-WAE (min) 60

Morphometry (Figure 1)

Watershed area (acres) 292,197
Surface area (acres) 7,903
Maximum depth (ft) 22
Mean depth (ft) 17

### Ownership and Public Access

Lake Poinsett is a meandered lake owned by the State of South Dakota and the fishery is managed by the SDGFP. The SDGFP maintains four public access sites on Lake Poinsett including one in a State Recreation Area (Figure 1; Figure 2). Ownership of the Lake Poinsett shoreline includes the State of South Dakota and private ownership. The shoreline of Lake Poinsett is highly developed and supports many cabins and homes.

#### Watershed and Land Use

Land use within the Lake Poinsett watershed is primarily agricultural including a mix of cropland, pasture or grassland, and shelterbelts.

#### Water Level Observations

The OHWM elevation for Lake Poinsett is 1651.5 fmsl and the outlet elevation is 1650.5 fmsl. The elevation of Lake Poinsett on May 15, 2013 was 1650.9 fmsl; slightly higher than the fall 2012 elevation of 1650.1 fmsl. On October 29, 2013 the elevation was 1650.9 fmsl.

Fish Management Information

Primary species Smallmouth Bass, Walleye, Yellow Perch

Other species Bigmouth Buffalo, Black Bullhead, Black Crappie, Bluegill,

Channel Catfish, Common Carp, Green Sunfish, Northern Pike, Orangespotted Sunfish, Shorthead Redhorse, Spottail Shiner, White Bass, White Crappie, White Sucker, Yellow Bullhead

Lake-specific regulations Walleye: minimum length 15" Management classification warm-water semi-permanent

Fish consumption advisories none

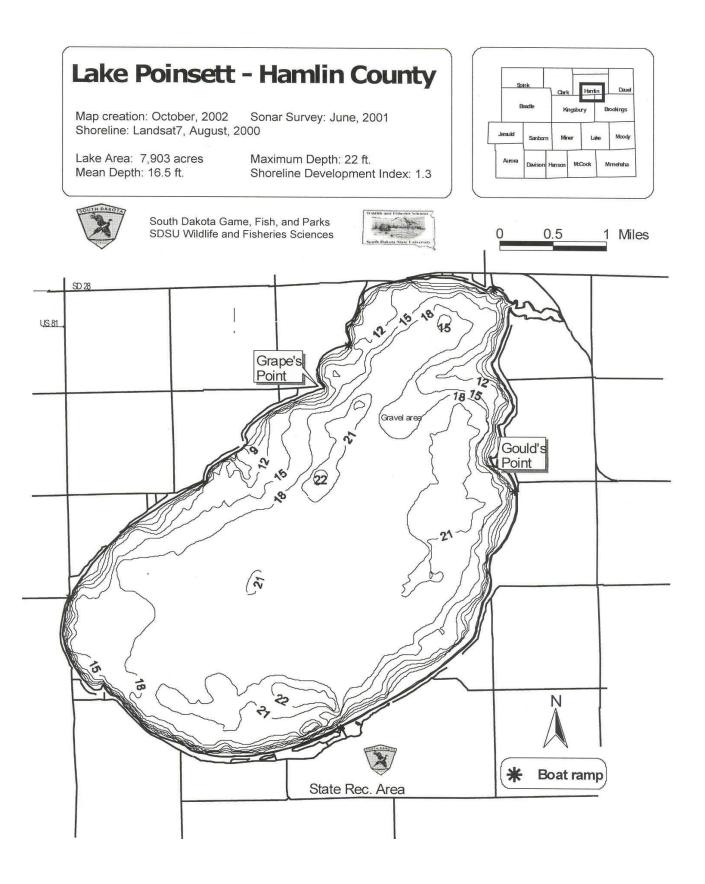


Figure 1. Map depicting access points and depth contours of Lake Poinsett, Hamlin County, South Dakota.

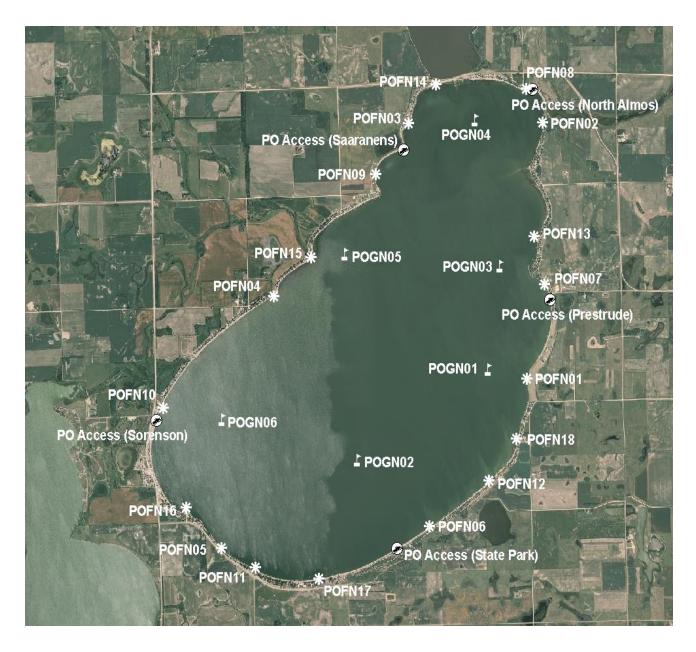


Figure 2. Map depicting access sites and standardized net locations for Lake Poinsett, Hamlin County, South Dakota. POFN= frame nets, POGN= gill nets

## **Management Objectives**

- 1) Maintain a moderate density Smallmouth Bass population with a PSD of 40-70, and a PSD-P of 10-40.
- 2) Maintain a mean gill net CPUE of stock-length Walleye ≥ 10, a PSD of 30-60, and a PSD-P of 5-10.
- 3) Maintain a mean gill net CPUE of stock-length Yellow Perch ≥ 30, a PSD of 30-60, and a PSD-P of 5-10.
- 4) Maintain a mean frame net CPUE of stock-length Black Bullhead ≤ 100.

#### **Results and Discussion**

Lake Poinsett is one of South Dakota's largest natural lakes with a surface area of nearly 8,000 acres. Lake Poinsett receives water from Lake Albert and Dry Lake. Historically, Lake Poinsett has been a popular destination for recreational activities including fishing, boating, swimming, water-skiing, and camping. Public access to Lake Poinsett is exceptional with access locations on the north, east, south (State Recreation Area), and west shores of the lake. Currently, Lake Poinsett is primarily managed as a Smallmouth Bass, Walleye, and Yellow Perch fishery.

### **Primary Species**

Smallmouth bass: Recent research has recommended that smallmouth bass population dynamics be monitored utilizing standardized spring (May and June) night electrofishing over suitable habitat (i.e., rocky substrate) in northeastern South Dakota glacial lakes (Bacula 2009). Spring night electrofishing to monitor Smallmouth Bass population parameters in Poinsett Lake is scheduled to be conducted biennially during even years, with 2014 being the next scheduled sample year.

<u>Walleye</u>: The mean gill net CPUE of stock-length Walleye was 6.7 (Table 1) and below the minimum objective (≥ 10 stock-length Walleye/net night; Table 3). Relative abundance is considered moderate. Since 2003, the mean gill net CPUE has ranged from a low of 3.0 (2004) to a high of 27.7 (2011; Table 2). The mean gill net CPUE has decreased the past two years after the high CPUE observed in 2011.

Walleye captured in the gill net catch ranged in TL from 23 to 62 cm (9.1 to 24.4 in), had a PSD of 48 and a PSD-P of 8 (Table 1; Figure 3). The PSD and PSD-P were within the objective ranges (30-60 and 5-10, respectively; Table 3). In 2013, approximately 46% of Walleye captured in gill nets were above the 38-cm (15-in) minimum-length restriction and available for harvest on Lake Poinsett (Figure 4).

Otoliths were collected from a sub-sample of gill net captured Walleye. Age structure information indicated the presence of six year-classes (2006-2011; Table 5).

The 2009 and 2011 year classes, which coincided with fry stockings, comprised 44% and 20%, respectively, of Walleye in the gill net catch (Table 5). In 2013, the mean fall night electrofishing CPUE of age-0 walleye was 2.0 (Table 1) and indicated production of a weak year class, which did not coincided with a fry stocking (Table 1; Table 7). However, recruitment is currently unknown and will be assessed in future surveys.

In recent years, strong Walleye year classes have been produced in both stocked (e.g., 2009) and non-stocked (e.g., 2007 and 2008) years (Table 5; Table 7). Walleye stocked in 2009 and 2011 were marked with Oxytetracycline (OTC) so that the contribution of stocked fish could be evaluated. The estimated stocking contribution for the 2009 cohort was 16% (Table 5). However, it was noted that extensive cracking through the focus of examined otoliths likely influenced mark visibility; therefore, the stocking contribution may have been higher. Sample size was too small to reliable estimate the stocking contribution of the 2011 year class, as only four age-0 Walleye were captured during fall night electrofishing (Table 2; Table 5).

Walleye in Lake Poinsett typically attain quality length and the minimum length limit (38 cm; 15 in) by age 3 (Table 6). Since 2005, the weighted mean length at capture for age-3 Walleye has ranged from 370 to 480 mm (14.6 to 18.9 in; Table 6). The growth of the three most recent year-classes has been slower than was observed among year-classes produced from 2004-2008. The weighted mean length at capture of age 2 Walleye decreased from 346 mm (13.6 in) in 2011 to 307 mm (12.1 in) in 2012 to 280 mm in 2013 (11.0 in; Table 5). The trend in slower growth was also evident within age 3 Walleye as the weighted mean length at capture decreasing from 440 mm (17.3 in) in 2011 to 394 mm (15.5 in) in 2012 to 370 mm in 2013 (14.6 in; Table 5). The cause of decreased Walleye growth is unknown but may be linked to increased relative abundance of Walleye and/or decreased prey availability (i.e. White Bass) since 2008. Gill net captured Walleye had mean Wr values that ranged from 83 to 88 for all length categories (e.g., stock to quality) sampled, with the mean Wr of stock-length Walleye being 85 (Table 1). No discernible length-related trends in condition were observed in 2013.

Yellow Perch: The mean gill net CPUE of stock-length Yellow Perch was 15.0 (Table 1) and below the minimum objective (≥ 30 stock-length Yellow Perch/net night; Table 3). Since 2003, mean gill net CPUE values have ranged from a low of 0.8 (2005) to a high of 137.2 (2010; Table 2). Based on the 2013 gill net CPUE, relative abundance is considered moderate.

Gill net captured Yellow Perch ranged in TL from 13 to 30 cm (5.1 to 11.8 in), with the majority being  $\geq$  quality-length (i.e., 20 cm; 8 in) resulting in high PSD and PSD-P values of 81 and 23 (Table 1; Figure 4). Both the PSD and PSD-P were above management objectives of 30-60 and 5-10 (Table 3).

Otoliths were collected from a sub-sample of gill net captured Yellow Perch. Age structure information suggested that year classes produced from 2009-2012 comprised the entire sample (Table 8). The 2011 year class was the most represented and comprised 62% of Yellow Perch in the gill net catch; while 2009 cohort accounted for an additional 21% (Table 8). Male Yellow Perch from the 2011 cohort had a weighted mean TL at capture of 196 mm (7.7 in) at age 3; while their female counterparts had a weighted mean TL at capture of 215 mm (8.5 in; Table 9). Gill net captured Yellow

Perch had high condition with mean Wr values that exceeded 100 for all length categories (e.g., stock to quality) sampled. The mean Wr of stock-length Yellow Perch was 110 (Table 1). No length-related trends in condition were apparent.

# Other Species

Black Bullhead: The mean frame net CPUE of stock-length Black Bullhead was 4.4 (Table 1) and within the management objective (≤ 100 stock-length bullhead/net night; Table 3). The 2013 mean frame net CPUE represented a substantial decrease from the 2012 CPUE of 79.7 (Table 2). Currently, relative abundance is considered moderate.

Black Bullhead in the frame net catch ranged in TL from 24 to 39 cm (9.4 to 15.4 in; Figure 6). The PSD was 100 and the PSD-P was 43 (Table 1; Table 3). No age and growth information was collected in 2013. The mean Wr of stock-length Black Bullhead was 87 (Table 1) and no length-related trends in condition were apparent.

<u>Channel Catfish</u>: Channel Catfish in Lake Poinsett have generally been considered to be present at a low density with mean gill net CPUE values that have ranged from a low of 0.0 (2010) to a high of 2.5 (2013; Table 2). In 2013, 15 channel catfish that ranged in TL from 44 to 87 cm (17.3 to 34.3 in) were captured by gill nets, which resulted in a mean gill net CPUE of 2.5 (Table 1). Although abundance is low the potential exists for anglers to catch channel catfish in Lake Poinsett.

Northern Pike: Northern Pike typically are not sampled effectively during standardized mid-summer fish community surveys. As a result, mean gill net CPUE values are often low. Northern Pike relative abundance in Lake Poinsett has generally been considered low, with mean gill net CPUE values that ranged from 0.0 to 1.0 from 2003-2010 (Table 2). The mean gill net CPUE of stock-length Northern Pike increased substantially in 2011, with a mean gill net CPUE of 7.3 (Table 2). Since 2011, the mean gill net CPUE of stock-length Northern Pike declined with the 2013 mean gill net CPUE being 1.3 (Table 1). Relative abundance is considered moderate.

Gill net captured Northern Pike ranged in TL from 56 to 72 cm (22.0 to 28.3 in), had a PSD of 100, and a PSD-P of 25 (Table 1). No age and growth information was collected in 2013. Sampled stock-length Northern Pike had a mean Wr value of 83 (Table 1).

White Bass: White Bass were not abundant in either the gill net or frame net catch. Frame nets captured six stock-length White Bass that ranged in TL from 33 to 44 cm (13.0 to 17.3 in) resulting in a mean frame net CPUE of 0.4 (Table 1). Five White Bass that ranged in TL from 28 to 42 cm (11.0 to 16.5 in) were captured by gill nets, which resulted in a mean gill net CPUE of 0.8 (Table 1).

No age and growth information was available. The mean Wr values for stocklength White Bass captured in frame nets and gill nets were 84 and 96, respectively (Table 1). However, condition indices should be interpreted with caution as sample size was relatively low.

Other: Bigmouth Buffalo, Black Crappie, Common Carp, Shorthead Redhorse, Spottail Shiner, White Sucker and Yellow Bullhead were other fish species captured in low numbers during the 2013 survey (Table 1).

Bigmouth Buffalo, Common Carp, and White Bass are commonly harvested through a permit by commercial fisherman. The approximate commercial harvest during the winter of 2012-2013 was: 56,300 pounds of Common Carp, 84,500 pounds of Bigmouth Buffalo and 5,500 pounds of White Bass.

## **Management Recommendations**

- 1) Conduct fish community assessment surveys utilizing gill nets and frame nets on an annual basis (next survey scheduled in summer 2014) to monitor fish relative abundance, fish population size structure, fish growth, and stocking success.
- 2) Conduct fall night electrofishing on an annual basis to monitor age-0 Walleye relative abundance.
- 3) Conduct spring night electrofishing on a biennial basis (even years) to monitor Smallmouth Bass population parameters.
- 4) Stock Walleye (≈500 fry/acre) to establish additional year-classes if gill netting and/or fall night electrofishing CPUE of age-0 Walleye results warrant [i.e., low gill net CPUE of sub-stock (< 25 cm (10 in) Walleye and/or fall night electrofishing CPUE of age-0 Walleye < 75 fish/hour].</p>
- 5) Maintain the 381-mm (15 in) minimum length limit on Walleye. The regulation is designed to protect smaller fish from harvest and increase average fish size (Lucchesi and Blackwell 2009).
- 6) Monitor commercial harvest of Bigmouth Buffalo, Common Carp, and White Bass.
- 7) Partner with willing landowners on shoreline restoration projects designed to restore native plant fauna along highly-developed shorelines providing improvements to water quality and littoral habitats within the lake.

Table 1. Mean catch rate (CPUE; gill/frame nets= catch/net night, electrofishing= catch/hour) of stock-length fish, proportional size distribution of quality- (PSD) and preferred-length (PSD-P) fish, and mean relative weight (Wr) of stock-length fish for various fish species captured in frame nets, gill nets and electrofishing in Lake Poinsett, 2013. Confidence intervals include 80 percent (± CI-80) or 90 percent (± CI-90). BIB= Bigmouth Buffalo; BLB= Black Bullhead; BLC= Black Crappie; CCF= Channel Catfish; COC= Common Carp; NOP= Northern Pike; SHR= Shorthead Redhorse; SMB= Smallmouth Bass; SPS= Spottail Shiner; WAE= Walleye; WHB= White Bass; WHS= White Sucker; YEB= Yellow Bullhead; YEP= Yellow Perch

	Abundar	nce	5	Stock Densit	v Indices		Condition		
Species	CPUE	CI-80	PSD	CI-90	PSD-P	CI-90	Wr	CI-90	
Frame nets									
BIB	4.2	2.8	97	3	64	10	92	3	
BLB	4.4	2.1	100	0	43	10	87	<1	
BLC	0.4	0.3	100	0	100	0	102	3	
CCF	0.2	0.1	100	0	0		95	25	
COC	2.7	1.1	100	0	91	7	93	2	
NOP	3.6	1.1	76	9	32	10	71	2	
SHR	0.1	0.0	100		100		129		
SMB	1.2	0.5	65	19	30	18	96	3	
WAE	1.4	0.7	58	18	13	12	84	2	
WHB	0.4	0.2	100	0	100	0	84	4	
WHS	0.2	0.1	100	0	100	0	93	9	
YEB	2.7	1.3	100	0	96	5	97	1	
YEP	0.1	0.1	100	0	50	50	89		
Gill nets									
BLB	0.2	0.2	100		0		101		
CCF	2.5	2.0	100	0	20	19	111	5	
COC	1.3	1.3	100	0	88	24	101	2	
NOP	1.3	0.8	100	0	25	31	83	3	
SMB	1.3	1.2	25	31	0		105	4	
SPS	0.5	0.5							
WAE	6.7	1.7	48	14	8	8	85	1	
WHB	8.0	0.5	100	0	80	43	96	5	
WHS	4.3	1.4	100	0	96	6	103	1	
YEB	0.3	0.5	100	0	100	0	101	29	
YEP	15.0	4.2	81	7	23	8	110	<1	
Electrofishing									
WAE <sup>1</sup>	2.0	3.0							

<sup>&</sup>lt;sup>1</sup> Fall electrofishing-WAE; catch rate (CPUE) represents age-0 Walleye/hour

Table 2. Historic mean catch rate (CPUE; gill/frame nets= catch/net night, electrofishing= catch/hour) of stock-length fish for various fish species captured using gill nets, frame nets, and electrofishing in Lake Poinsett, 2004-2013. BIB= Bigmouth Buffalo; BLB= Black Bullhead; BLC= Black Crappie; BLG= Bluegill; CCF= Channel Catfish; COC= Common Carp; NOP= Northern Pike; OSF= Orangespotted Sunfish; SHR= Shorthead Redhorse; SMB= Smallmouth Bass; SPS= Spottail Shiner; WAE= Walleye; WHB= White Bass; WHS= White Sucker; YEB= Yellow Bullhead; YEP= Yellow Perch

			CPUE							
Species	2004	2005	2006 <sup>4</sup>	2007 <sup>4</sup>	2008	2009	2010	2011	2012	2013
Frame nets										
BIB	1.5	0.1			0.0	1.8	0.4		0.0	4.2
BLB	0.7	0.2			0.6	0.3	0.2		79.7	4.4
BLC	0.1	0.0			0.0	0.0	0.1		4.5	0.4
BLG	0.1	0.0			0.0	0.0	0.0		0.1	0.0
CCF	0.0	1.6			0.7	0.1	0.4		0.8	0.2
COC	0.1	0.0			0.2	1.1	0.6		0.3	2.7
NOP	0.2	1.0			1.3	0.6	0.5		5.9	3.6
OSF 1	0.0	0.1			0.0	0.0	0.0		0.0	0.0
SHR	0.2	0.0			0.1	0.1	0.0		0.2	0.1
SMB	1.1	0.0			4.3	0.3	1.7		2.2	1.2
WAE	0.1	0.1			1.4	4.1	0.3		4.0	1.4
WHB	2.5	0.0			0.7	0.6	0.1		3.1	0.4
WHS	1.9	0.5			1.4	2.4	0.7		1.1	0.2
YEB	0.0	0.0			0.0	0.0	0.0		19.3	2.7
YEP	0.3	4.3			2.3	0.4	22.4		0.6	0.1
Gill nets										
BIB	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.7	0.0
BLB	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.0	2.5	0.2
CCF	1.0	1.2	2.7	1.0	0.3	0.5	0.0	0.8	2.2	2.5
COC	0.0	0.2	0.8	1.0	0.0	0.0	0.3	0.3	2.8	1.3
NOP	0.3	0.0	0.7	0.8	0.5	0.0	1.0	7.3	2.0	1.3
OSF <sup>1</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0
SHR	0.0	0.2	0.3	0.3	0.0	0.2	0.2	0.0	0.0	0.0
SMB	8.0	0.8	0.7	1.8	0.2	0.2	0.2	0.3	1.3	1.3
SPS <sup>1</sup>	0.0	0.0	0.0	0.0	0.2	2.0	4.7	0.0	0.0	0.5
WAE	3.0	8.3	5.0	6.3	5.7	16.0	10.0	27.7	12.5	6.7
WHB	25.5	15.0	11.7	10.0	3.2	3.5	3.5	1.3	2.2	0.8
WHS	1.2	2.0	1.5	1.2	0.5	0.2	2.7	2.7	2.3	4.3
YEB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.3
YEP	11.5	0.8	5.7	6.2	16.0	13.2	137.2	22.0	22.0	15.0
Electrofishing										
SMB <sup>2</sup>							19.6		30.6	
WAE <sup>3</sup>	31.1	97.5	117.0	79.8	19.5	257.2	0.0	4.0	305.0	2.0

<sup>&</sup>lt;sup>1</sup> All fish sizes

<sup>&</sup>lt;sup>2</sup> Spring electrofishing-SMB <sup>3</sup> Fall electrofishing-WAE; catch rate (CPUE) represents age-0 Walleye/hour

<sup>&</sup>lt;sup>4</sup> Monofilament gill net mesh size (0.75", 1.00", 1.25", 1.50", 2.00" and 2.50")

Table 3. Mean catch rate (CPUE; gill/frame nets= catch/net night, electrofishing= catch/hour) of stock-length fish, proportional size distribution of quality- (PSD) and preferred-length (PSD-P) fish, and relative weight (Wr) for selected species captured using gill nets, frame nets, and electrofishing in Lake Poinsett, 2004-2032. BLB= Black Bullhead; SMB= Smallmouth Bass; WAE= Walleye; YEP= Yellow Perch

Species	2004	2005	2006 <sup>1</sup>	2007 <sup>1</sup>	2008	2009	2010	2011	2012	2013	Objective
Frame nets											
BLB											
CPUE	1	< 1			1	<1	<1		79.7	4	≤ 100
PSD	100	100			100	33	67		36	100	
PSD-P	100	100			100	33	67		14	43	
Wr	102	101			90	102	88		95	87	
Gill nets											
WAE											
CPUE	3	8	5	6	6	16	10	28	13	7	≥ 10
PSD	72	72	63	42	59	17	32	16	57	48	30-60
PSD-P	6	10	23	18	12	2	2	5	4	8	5-10
Wr	99	97	85	89	88	90	94	85	82	85	
YEP											
CPUE	12	1	6	6	16	13	137	22	22	15	≥ 30
PSD	77	60	100	32	17	27	9	93	83	81	30-60
PSD-P	75	60	38	22	16	15	3	5	55	23	5-10
Wr	119	105	105	107	105	106	106	107	107	110	
Electrofishing											
SMB <sup>2</sup>											
CPUE							20		31		
PSD							45		13		40-70
PSD-P							30		6		10-40
Wr			(0.75"				116		99		

<sup>&</sup>lt;sup>1</sup> Monofilament gill net mesh size (0.75", 1.00", 1.25", 1.50", 2.00" and 2.50")

<sup>2</sup> Spring electrofishing-SMB

Table 4. Year class distribution based on the expanded age/length summary for Walleye sampled in gill nets and associated stocking history (# stocked x 10,000) from Lake Poinsett, 2009-2013.

		Year Class												
Survey Year	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002		
2013			8	12	18	1	1	1						
2012			12	1	68	2	2	1			1			
2011					145	7	8	3	2		1			
2010					51	21	8	3		2				
2009						47	44	2	3	1	1	1		
# stocked														
fry		400	300 <sup>1</sup>		$400^{2}$			805	1170		1052			
sm. fingerling														
lg. fingerling														

50% of stocked Walleye were OTC marked; only three age-0 Walleye were collected during fall electrofishing. All exhibited marks.

<sup>&</sup>lt;sup>2</sup> Stocked Walleye were OTC marked; 8 of 50 otoliths collected from fall electrofished age-0 walleye exhibited marks for an estimated stocking contribution of 16%. However, it was noted that extensive cracking through the focus of examined otoliths likely influenced mark visibility; therefore, the stocking contribution may have been higher.

Table 5. Weighted mean TL at capture (mm) for Walleye age-1 through age-10 sampled in experimental gill nets (expanded sample size) from Lake Poinsett, 2005-2013. Note: sampling was conducted at approximately the same time during each year allowing comparisons among years to monitor growth trends.

		Age												
Year	1	2	3	4	5	6	7	8	9	10				
2013		280(8)	370(12)	409(18)	528(1)	556(1)	623(1)							
2012	205(12)	307(1)	394(68)	477(2)	508(2)	577(1)			706(1)					
2011		346(145)	440(7)	499(8)	547(3)	444(2)		534(1)						
2010	250(51)	369(21)	436(8)	480(3)		517(2)								
2009	265 (47)	358 (44)	468 (2)	478 (3)	496 (1)	514 (1)	580(1)							
2008	233 (21)	372 (14)	450 (4)	506 (3)	520 (4)			568 (1)						
2007 <sup>1</sup>	265 (9)	362 (19)	433 (1)	506 (6)		554 (1)								
2006 <sup>1</sup>	223 (39)	378 (1)	461 (12)		563 (2)		532 (1)		559 (1)					
2005 <sup>1</sup>	269 (3)	385 (37)	480 (1)		511 (2)	519 (3)	491 (1)							

Older Walleye were sampled, but are not reported in this table.

Table 6. Stocking history including size and number for fishes stocked into Lake Poinsett, 2002-2013. WAE= Walleye

Year	Species	Size	Number
2003	WAE	fry	10,520,000
2005	WAE	fry	11,700,000
2006	WAE	fry	8,050,000
2009	WAE	fry	4,000,000
2011	WAE	fry	3,000,000
2012	WAE	fry	4,000,000

Table 7. Year class distribution based on the age/length summary for Yellow Perch sampled in gill nets from Lake Poinsett, 2009-2013.

	Year Class										
Survey Year	2013	2012	2011	2010	2009	2008	2007	2006	2005		
2013		8	56	7	19						
2012			23	11	98						
2011				6	126						
2010					761	47	14	2			
2009						59	19	1	1		

Table 8. Weighted mean TL (mm) at capture by gender for Yellow Perch captured in experimental gill nets (expanded sample size) from Lake Poinsett, 2009-2013.

		Age		
Year	1	2	3	4
2013				
Male	146(2)	196(5)	247(3)	264(3)
Female	147(6)	215(51)	244(4)	279(16)
Combined	147(8)	214(56)	246(7)	277(19)
2012				
Male	156(3)	217(1)	234(19)	
Female	156(18)	228(10)	265(78)	
Combined	156(23)	226(11)	259(98)	
2011	, ,	. ,	, ,	
Male	156(4)	212(16)		
Female	155(1)	232(99)		
Combined	156(6)	228(126)		
2010	, ,	,		
Male	161(126)	227(9)	258(4)	
Female	169(484)	242(40)	299(8)	328(2)
Combined	167(761)	239(47)	281(14)	328(2)
2009	, ,	. ,	, ,	, ,
Male	144(14)	220(1)		
Female	147(44)	247(1 <sup>8</sup> )	313(1)	325(1)
Combined	147(59)	246(19)	313(1)	325(1)

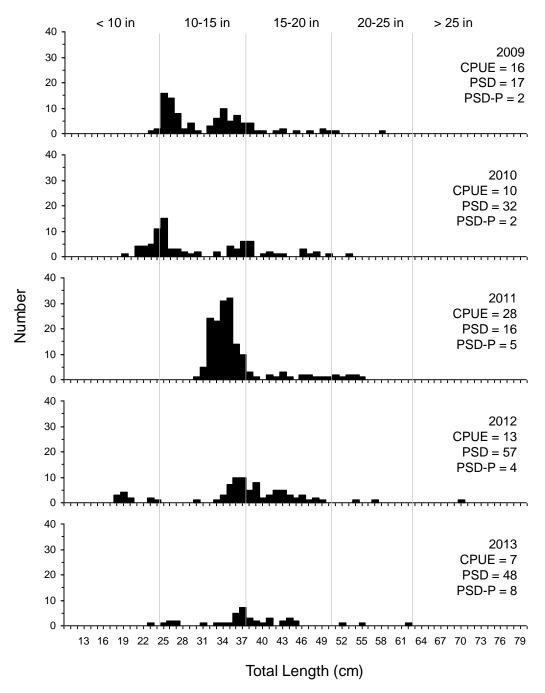


Figure 3. Length-frequency histogram, catch rate of stock-length fish (CPUE), proportional size distribution of quality- (PSD) and preferred-length (PSD-P) fish for Walleye captured using experimental gill nets in Lake Poinsett, 2009-2013.

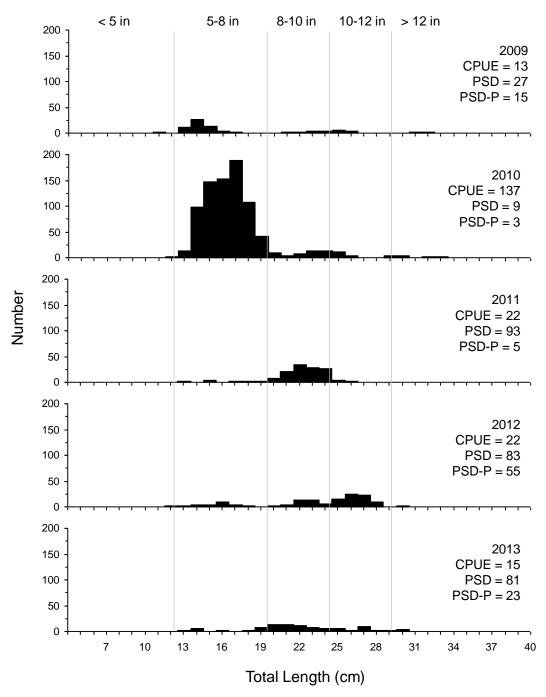


Figure 4. Length-frequency histogram, catch rate of stock-length fish (CPUE), proportional size distribution of quality- (PSD) and preferred-length (PSD-P) fish for Yellow Perch captured using experimental gill nets in Lake Poinsett, 2009-2013.

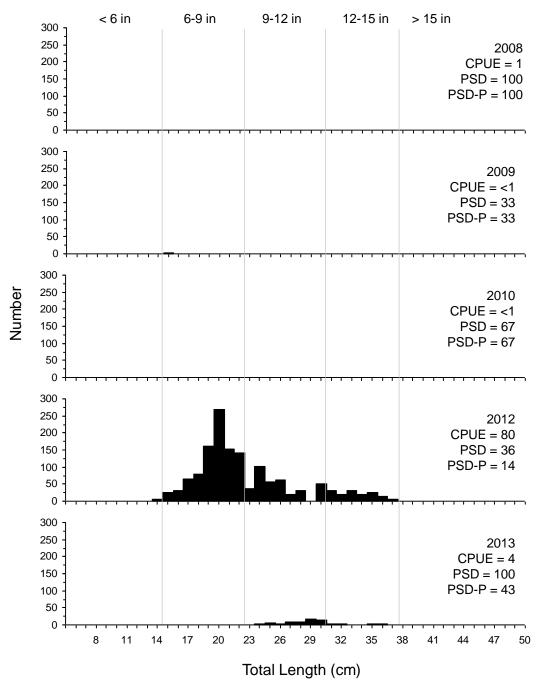


Figure 5. Length-frequency histogram, catch rate of stock-length fish (CPUE), proportional size distribution of quality- (PSD) and preferred-length (PSD-P) fish for Black Bullhead captured using frame nets in Lake Poinsett, 2008-2013.